*TROGLODYTES OF THE VEZERE**

IV.

IV.—*Arts among the Troglodytes*

THE men of the reindeer age cultivated drawing, chiselling, and even sculpture. We must admit that they had, like ourselves, many inferior artists; but among a large number of coarse attempts, such as our "street arabs" chalk on the walls, there are some really remarkable ones, which denote at the same time a clever hand and an eye practised in the observation of nature.

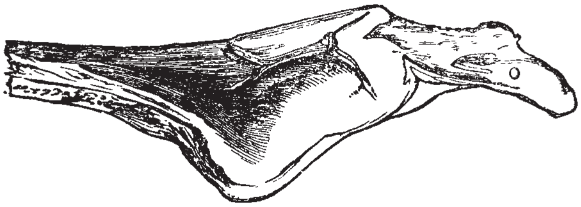

FIG. 23.—Sculptured pointed handle, representing an elongated reindeer.

Drawing, with this people, evidently preceded sculpture. The figures in relief are much more rare among them than those that are carved, and likewise much less perfect. The latter are common at the Eyzies and Lower Laugerie, but they abound more especially at the Madelaine, where they are also much more correct. These drawings are all carved. Most of them ornament the surface of different objects in deer horn, such as batons of command, handles of poignards; but some are engraved on pieces of stone, ivory, or deer horn, which were not intended for any other use, and which were prepared purposely to receive the work of the artist. (See Figs. 12 and 22.)

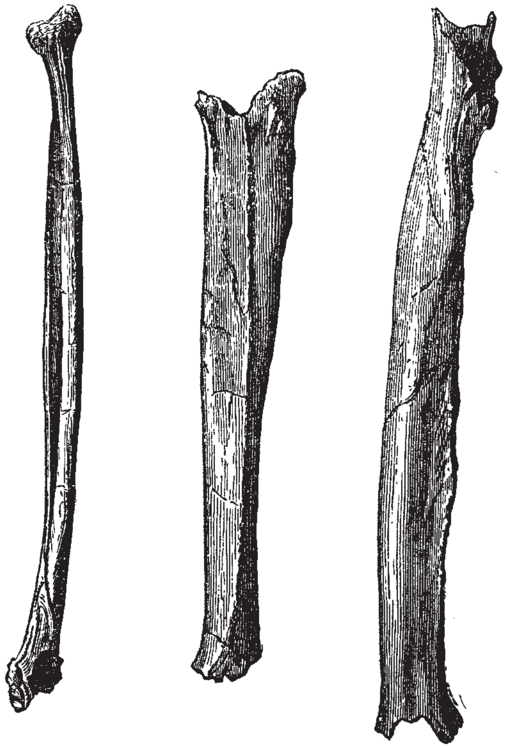

FIG 24. FIG. 25. FIG. 26

Bones of the old man of Cromagnon. Fig. 24—Shin-bone. Fig. 25.—Flattened tibia. Fig. 26.—Femur: profile view.

Nearly all these drawings represent natural objects. Some, however, are merely simple ornate lines, forming zigzag festoons, and more or less elegant curves.

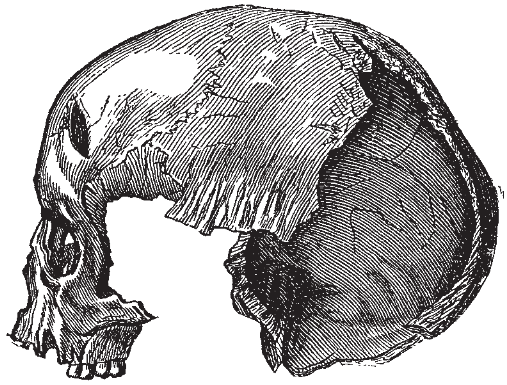

FIG. 27.—Skull of the woman of Cromagnon: profile. The wound in the frontal bone is shown.

Three little roses carved on a handle in deer-horn, seem to represent a polypetalous flower. All the other drawings are representations of animals.

The most numerous are those of the reindeer, then those of the horse: the ox and the aurochs are less common. These different animals are easily distinguished; their ways, their movements are sometimes reproduced with much elegance and accuracy; often they are isolated, dispersed in apparent disorder and in numbers over the whole surface of an object; then again they form groups, they are seen fighting together (see Fig. 22), or fleeing from man.

Of all these drawings, the most important and also the most rare, for it is at present unique, is that which represents the mammoth, and of which I have already spoken.

Drawings of fish are pretty common. With one exception, which represents an eel or a lamprey (if it is not a serpent), they have a shape which, though not very characteristic, may be intended for a salmon.

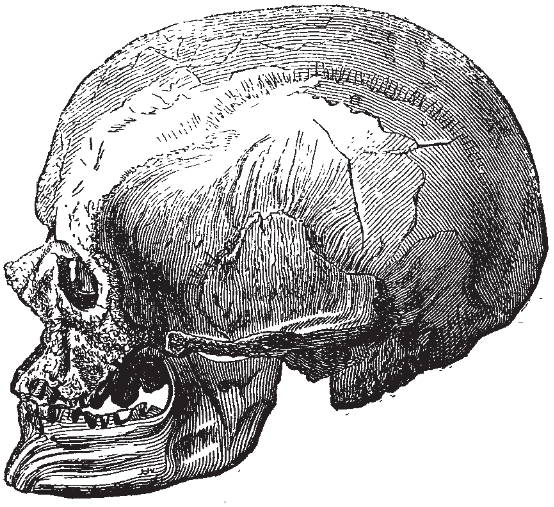

FIG. 29.—Skull of the old man of Cromagnon: profile.

The Troglodytes, sometimes so clever in delineating animals, were very inferior artists of the "human form divine;" they very rarely studied it. Only one study of a head has been found; it is a very small drawing, representing a grotesque profile. Two other drawings, pretty much alike, represent the forearm terminating in a hand with four fingers, the thumb being hidden. I have already told you that the pieces of sculpture are much more rare than the drawings. There are not more than half a dozen, and they all come from Lower Laugerie. One of them, belonging to the Marquis de Vibraye, represents a woman, another represents a reindeer (see Fig. 23).

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* Continued from p 369

V.—*Race*

To complete the study of this interesting people, I should now like to be able to characterise the race to which they belonged. The human bones that have been collected up to the present time are not, unfortunately, sufficiently numerous to satisfy our curiosity. However they suffice to prove that this race was very different from the succeeding ones, and to prove above all how much the learned anthropologist Retzius and his disciples were deceived, in stating that all the population of Western Europe, before the comparatively recent epoch of the Indo-European emigrations, belonged to the type of *short heads* or *brachycephals.*

M. Elie Massenat discovered, some months ago, at Lower Laugerie, the skeleton of a man who appears to have been buried in a landslip. But the anatomical description of this precious skeleton has not yet been published; and I regret it the more, that it is the only discovered remains of the Troglodytes of the latest epoch.

The skulls and bones, of which I show you the models, belong to a much earlier date. They were found in the ancient burying ground of the station of Cromagnon, of which the geological, palæontological, and archæological characters have been ascertained with the greatest nicety by M. Louis Lartet. This sepulchre, henceforth celebrated, contained the remains of at least five people. But only three skulls, two male and one female, were sufficiently well preserved to make useful studies. One of the men had attained a great age; the other man and the woman were adults; near them lay a young child. Their stature was very lofty, and far superior to our own. The length of the femur of the old man indicated a height of more than 1·80m. The volume of the bones, the extent and roughness of the surfaces of muscular insertion, the extraordinary development of the branch of the jawbone, where the masticatory muscles are inserted, prove an athletic constitution.

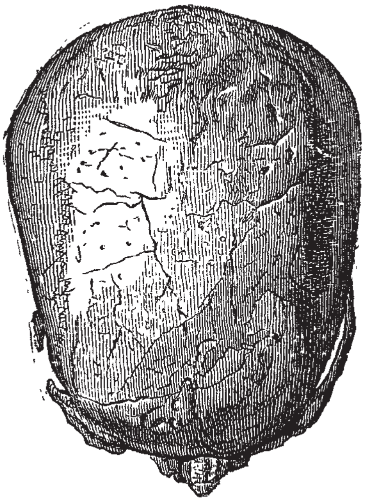

FIG. 31.

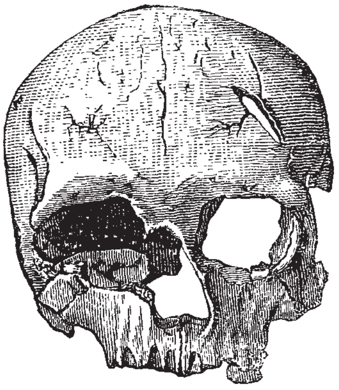

FIG. 28.

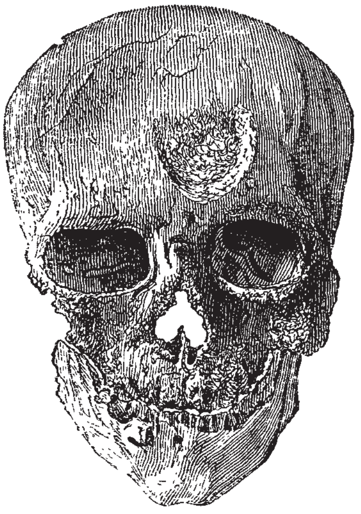

FIG. 30.

Fig. 28.—Skull of the woman of Cromagnon front view. Fig. 30.—Skull of the old man of Cromagnon: front view. Fig. 31.—Skull of the old man of Cromagnon, *Norma verticalis*

The tibias, instead of being triangular and prismatic like our own, are flattened like those of the gorilla (see Fig. 24. The upper part of the cubitus, very powerful and arched, supports a very small sigmoidal cavity, and its characteristics again recall the shape of the gorilla. But the conformation of the femur differs radically from that of the monkey tribe. The femur of anthropomorphal monkeys is flattened from front to back—that is to say, much wider than it is thick, and it does not present, on its posterior surface, that longitudinal elevation which in man is called the *rough line*. In the existing human races, the thickness of the femur is in general rather greater than its width, but the difference is inconsiderable. At Cromagnon this bone is much thicker than it is wide (see Fig. 25). The rough line, enormously developed, is no longer a simple elevation; it is a regular bony column, thick and projecting, which considerably augments the solidity of the bone and the extent of the muscular insertions. In this respect, therefore, the Cromagnon race differs much more from the Simian type than do the existing races. The skeletons of these robust Troglodytes bear the traces of their deeds of violence. One of the femurs of the old man presents, towards the lower extremity, a cavity such as is sometimes produced by our musket balls. It is evidently the result of an old wound. It was evidently a human hand, armed with a flint weapon, which produced a long penetrating wound on the skull of the woman. The width of the opening shows that the weapon must have reached the brain. This inglorious murder of a woman does not shed lustre on the people of Cromagnon. The study of their industry has already proved that their social status was not above that of other savage nations. An examination of their skulls confirms this notion,

With them, the sutures of the anterior region of the cranium are very simple, while those of the posterior region are rather complicated; besides which the former have a manifest tendency to close long before the latter. These two characteristics are observable in people and in individuals who live principally an animal life. The Cromagnon Troglodytes were then savages. But these savages were intelligent, and open to improvement; side by side with the proofs of inferiority I have just given, we find among them sure signs of a powerful cerebral organisation. The skulls are large. Their diameters, their curves, their capacity, attain, and even surpass, our medium skulls of the present day. Their form is very elongated. The alveolar process of the old man is oblique, but the upper part of the face is vertical, and the facial angle is very open. The forehead is wide, by no means receding, but describing a fine curve; the amplitude of the frontal tuberosities denotes a large development of the anterior cerebral lobes, which are the seat of the most noble intellectual faculties. If the Cromagnon Troglodytes are still savages, it is because their surrounding conditions have not permitted them to emerge from barbarism; but they are not doomed to a perpetual savage state. The development and conformation of their brain testify to their capability for improvement. When the favourable opportunity arrives, they will be able to progress towards civilisation. These rough hunters of the mammoth, the lion, and the bear, are just what ought to be the ancestors of the artists of the Madelaine.

I have just glanced over the principal facts in the history of the Troglodytes of the Vézère. For want of time, I have been obliged to shorten several and omit a number more. I hope, nevertheless, that you have been able to follow with me from Moustier to Cromagnon, from Cromagnon to Upper Laugerie and Gorge d'Enfer, and from thence finally to the three stations of the Eyzies, Lower Laugerie, and the Madelaine; the progressive evolution of an intelligent race, which advanced step by step, from the most savage state to the very threshold of civilisation. The Troglodytes of the latest epoch had, so to speak, but one step to take in order to found a real civilisation, for their society was organised, and they possessed arts and industry, which are the two great levers of progress.

This people have, nevertheless, disappeared, without leaving a single trace in the traditions of man. They did not die off by degrees, after having passed through a period of decadence. No, they perished without transition, rapidly, perhaps suddenly, and with them the torch of the arts was suddenly extinguished. Then began a dark period, a sort of middle ages, the duration of which is unknown. The chain of time becomes broken, and when we seize it again, we find, in the place of the reindeer hunters, a new society, a new industry, a new race. They are beginning to understand agriculture, they have some domestic animals, they are raising megalithic monuments, they have hatchets of polished flint. It is the dawn of a new day; but they have lost every remembrance of the arts. Sculpture, drawing, ornamentation, have alike disappeared, and we must descend to the later period of polished stone to find, here and there, on the slabs of some very rare monuments, a few ornamental lines which have absolutely nothing in common with the remarkable productions of art among the Troglodytes. The extinction of the Troglodytes was so complete and so sudden that it has given rise to the hypothesis of an inundation; but against this geology protests, and, to explain the phenomenon, we need only refer to the influence of man himself. Our peaceable reindeer-hunters, with their gentle manners, their light weapons, which were not adapted for fighting, were not calculated to resist the invasion of barbarians, and their growing civilisation succumbed at the first shock, when powerful conquerors, better armed for war, and already provided perhaps with the polished hatchet, came to invade their valleys. It was then seen, as it has often since been proved, that might conquers right.

PROF. FLOWER'S HUNTERIAN LECTURES

LECTURES XVI. XVII. XVIII.

ARTIODACTYLATA. The peculiarities of the skeleton in these animals have been already pointed out; it may be added as a constant special character, that the lower end of the fibula articulates with the calcaneum as well as with the astragalus; the premolars are also simpler than the molars, and there is an extra lobe to the last milk molar. The number of existing species is very great; they tend to divaricate in two directions, one culminating in the Pigs, and the other in the Cavicorn Ruminants. The Hippopotamus and Chevrotain at first sight do not look much alike, but the links between the two are very complete. The existing species are the most differentiated members of the order. Of the *Suina*, the Pigs are very exceptional among existing mammalia in retaining the typical number of forty-four teeth, Gymnura, an insectivorous animal, alone resembling them in this point; however there are spaces between some of them, so they do not form a regular series. The upper canines are very peculiar in being directed upwards instead of downwards, and in the Babirussa, where they pierce the upper lip, this is carried to an extreme. The molars are tuberculated, the tubercles being four in number in the Peccary, but much more numerous, especially in the last molars of *Sus*, where the extra ones represent the third lobe of the same teeth in the Ruminants. In a fossil pig from Pikermé the canines were similarly developed in both sexes, so the sexual differentiation must have been of later origin. In the Wart-hogs the incisors are rudimentary, and late in life the only molars persisting are the enormous columnar last molars; the great size of the canines is well known.

In the true *Ruminantia* there are no upper incisors, and the canines are but rarely developed. In the lower jaw there are eight teeth in a row along the front of the mouth, the two lateral can be proved to be canines, because in older types they are found of a different shape from the six true incisors. The anterior premolar is never developed. Kowalevsky has recently given the names *Bunodont* and *Selenodont* to the non-ruminating and ruminating members of this class, on account of the differences exhibited by their molar teeth, those in the latter presenting the ridges as a double crescent instead of in tubercles. The temporal bone and its surroundings give excellent characters whereby to separate these sub-classes; the shape of the glenoid cavity and the direction of the external auditory meatus differing considerably in them. There is also no lateral notch in the palate of the pigs like those in the Ruminants. The Cervidæ and Cavicorn Ruminants also have the odontoid process of the axis peculiarly spout-shaped, whilst in the pigs it forms a simple peg, much as in man. It does not seem to have been remarked before that in this respect the *Tragulidæ* differ from the typical Ruminants, and resemble the pigs, the odontoid in them being a peg. With regard to the feet of *Sus*, Dr. Kowalevsky has made some important observations, having shown that the approximated sides of the two median metacarpals, which are the largest, send in towards one another processes which interlock, and that the shape of their distal articular surfaces causes them to be pressed together when the foot is to the ground. In the pigs the fibula is separate and complete, but in the Ruminants it is represented only by a small piece of bone outside the ankle; a rudiment is sometimes present above. That the deer approach the original type more than do the antelopes is evident from the facts that the upper canines are sometimes present, the crowns of the molars are shorter, and the lateral toes are present, being best developed on the fore-limb. The *Tragulidæ* are less differentiated in having the anterior metacarpals free and the fibula entire, though slender; the canines are well developed in the male at least, and the glenoid cavity is as like that of the pig as of the deer. *Dicotyles* approaches the ruminants from the other side, the metatarsals uniting to form a canon bone, and the foot altogether closely resembling that of Hyomoschus, though an outer toe is lost in the former. The camels are developed in a different direction, approaching the more generalised type.

Artiodactylates appear first in the middle Eocene, and therefore do not go so far back as the Perissodactylata.